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Restructuring in the Canadian Economy: A Survey of Firms

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The views expressed in this paper are those of the author.
No responsibility for them should be attributed to the Bank of Canada.

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Abstract

The regional offices of the Bank conducted a survey of 140 Canadian companies (representing all non-government sectors of the economy) to study the effects of restructuring (defined as a major change in the way firms do business). Results of the survey confirmed the perception that the extent of firm-level restructuring was greater in the 1990s than in the 1980s. The most common type of restructuring was the adoption of new technology. This investment was typically driven more by the *availability* of the technology than by its *affordability*. Intense competitive pressure was another important motivation. Other forms of restructuring included the move to "bigger business" through larger-format retail outlets, mergers, or consolidation.

For the firms surveyed, restructuring reduced employment more often in the 1990s than in the 1980s. The most common reason for a decrease in employment was that competition squeezed profit margins and made it necessary to reduce the cost of labour. Restructuring also had other effects on the labour force: a shift in the skill mix in favour of more highly skilled workers and increasing use of contract workers to maintain flexibility. Companies were optimistic, however, regarding their future performance.

JEL classification: O51
Bank classification: Labour markets; Regional economic developments; Productivity

Résumé

Les bureaux régionaux de la Banque du Canada ont mené une enquête auprès de 140 firmes canadiennes représentant tous les secteurs économiques autres que celui des administrations publiques afin d'étudier les effets de la restructuration (celle-ci étant définie comme un changement fondamental dans la façon dont les entreprises mènent leurs opérations). Cette enquête a confirmé la perception selon laquelle les restructurations d'entreprises ont été plus répandues dans les années 1990 que dans les années 1980. L'adoption de nouvelles technologies a représenté le type de restructuration le plus courant. L'investissement dans la technologie était davantage fonction de la *disponibilité* de celle-ci que de son *coût abordable*. La concurrence intense est aussi un facteur important ayant incité les entreprises à se restructurer. Un autre type de restructuration observé est l'expansion de l'entreprise, qui est réalisée par un renforcement des points de vente ou encore par des fusions ou des regroupements.

Dans les entreprises sondées, la restructuration a fait perdre davantage d'emplois durant les années 1990 qu'au cours de la décennie précédente. La cause la plus commune de la diminution

de l'emploi est la concurrence, qui a rétréci les marges bénéficiaires et entraîné une compression des coûts de main-d'œuvre. La restructuration a eu d'autres effets sur la main-d'œuvre, notamment un ajustement de l'éventail des compétences au profit des travailleurs hautement qualifiés et le recours croissant à des employés contractuels dans le but de maintenir un certain degré de flexibilité. Les entreprises envisagaient toutefois l'avenir avec optimisme.

Classification JEL : O51
Classification de la Banque : Marchés du travail; Évolution économique régionale; Productivité

1. Introduction

Near the end of the 1980s and into the early 1990s, the Canadian economy experienced a number of major structural changes. These included the Free Trade Agreement (FTA); deregulation in the transportation, communications, and financial sectors; the arrival of large U.S.-based retailers; and the introduction of the goods and services tax (GST). While anecdotal evidence suggests that restructuring intensified as a result of these shocks, there is a lack of direct evidence. The restructuring associated with these developments may, however, at least partially explain the sluggish performance of output and employment growth in the first half of the 1990s.

The relationship between firm-level employment and corporate restructuring (defined here as a fundamental change in the way firms conduct their operations) has not been extensively studied or measured. Questions such as the extent of restructuring and its effects on employment are difficult to resolve using traditional analytical techniques and data. In such circumstances, it may be useful to ask companies directly about their experiences. The staff at the Bank's regional offices[1] therefore undertook a survey of Canadian companies.[2] The survey was designed to assess whether there are any links between restructuring and employment at the firm level; to determine whether restructuring was more intensive in the 1990s than in the 1980s; to determine the role, if any, that restructuring might have in explaining the sluggish employment performance in the first half of the 1990s; and to determine whether restructuring could reasonably be expected to contribute to improved productivity in the future.

The survey results were published previously by Kwan (2000). This paper draws heavily on that article and expands upon it by documenting the results of another study, providing more details of the methodology and discussing other issues related to the survey.

2. Methodology

This project involved two important preliminary tasks. The first was to design the survey; the second was to select the sample of firms. Each regional office then conducted interviews with representatives of each company, in most cases the chief financial officer or vice-president of finance. All companies spoke with the Bank on the condition of confidentiality. Their anecdotal

1. In 1997, the Bank established five regional offices, located in Vancouver, Calgary, Toronto, Montreal, and Halifax. They represent British Columbia and Yukon; Prairie provinces, Nunavut, and Northwest Territories; Ontario; Quebec; and Atlantic provinces, respectively. For more details see Amirault and Lafleur (2000).
2. A separate study by Fenton, Ip, and Wright (2001) examines the employment effects of restructuring in the public sector.

information is used to supplement and provide background to the results of the formal survey questions.

Among the key factors that contributed to the success of this survey, it was particularly helpful to conduct the interviews face-to-face in meetings that took, on average, one hour. This enabled Bank staff to better understand the business conditions at the time of restructuring and to clarify the responses to questions. In some instances, the results were faxed back with written comments from the company, and the company was contacted by phone for any necessary clarification. A key feature of the survey was that it attempted to gauge the effects on employment while controlling for the effects of the business cycle. The face-to-face meetings helped Bank staff to ensure that the intent of each question was understood by respondents, as it was possible for firms to interpret the survey questions differently than intended. For example, the term "restructuring" could have been interpreted as a euphemism for "downsizing."

2.1 Survey questionnaire

The questionnaire, shown in Appendix C, was designed to answer the following questions: Did restructuring occur? What type of restructuring took place and why? What were the effects on employment? Questions regarding employment tried to assess both the effect on the level of employment and the change in the type of jobs in demand. Firms were asked to respond to each question for each of the two decades (1980s and 1990s), to distinguish the impact of restructuring on employment over each decade. The questionnaire contained choices for different responses to each question and provided free space for individualized responses.

One objective of the survey was to collect evidence on the impact of several major shocks that affected the Canadian economy in the 1990s. These shocks included changes in regulation affecting the transportation, utilities, and financial markets sectors; the FTAs affecting the manufacturing sector; and new entrants into the retail sector. Thus, the choices for question 3, on the reasons for restructuring, included changes in government regulation, competition, the FTA, and the North American Free Trade Agreement (NAFTA), as well as the desire to compete globally.

2.2 Selecting the sample

Three main factors were considered in determining which firms to interview: an appropriate mix of small, medium, and large companies; a division across all industry sectors in roughly the same proportion as their representation in each region's total gross domestic product (GDP);[3] and

3. Throughout this paper, GDP refers to business sector GDP, or total GDP excluding government, health, and social services.

proper representation of nationally based and provincially based companies. Firm size was defined by the following characteristics: small firms were those that employed between one and 100 people; medium-sized firms were those that employed between 101 and 500 people; and large firms were those with over 500 employees.

Using the Statistics Canada Standard Industrial Classification codes (1980) to two digits, the desired number of companies for each major industrial group was identified. In some cases, such as manufacturing or retail trade, the industry group was further subdivided. Each industry's share of total GDP was calculated and a representative number of firms from each grouping was determined. Given the desired sectoral mix for the sample, Bank staff in each regional office compiled a list of companies.

A total of 140 companies were surveyed. There were 36 national companies (those with employees in more than one region) and 104 regional companies (those with employees based primarily in one area) (Table 1). All but two national companies had more than 500 employees; the remaining two were medium-sized. Of the 104 regional companies, 58 were large (L), 27 were medium-sized (M), and 19 were small (S). Since GDP by firm size is not readily available, as a proxy for the size of GDP, it is possible to examine the proportion of all paid employees that worked in each group. Small firms are underrepresented, mainly because, having fewer operational staff, it was difficult for them to participate in the survey. Large companies are overrepresented (Table 2).

Table 1: Number of Companies by Industry and Size

Industry sector	Regional			National			Total		
	L	M	S	L	M	S	L	M	S
Primary	6	1	2	5	0	0	11	1	2
Manufacturing	11	9	2	9	0	0	20	9	2
Construction	5	2	3	1	0	0	6	2	3
Transportation, communications, and utilities	13	2	4	3	0	0	16	2	4
Wholesale and retail trade	7	4	3	8	0	0	15	4	3
Finance, insurance, and real estate	5	2	2	3	1	0	8	3	2
Business and personal services	11	7	3	5	1	0	16	8	3
Goods-producing	22	12	7	15	0	0	37	12	7
Services	36	15	12	19	2	0	55	17	12
Total by size	58	27	19	34	2	0	92	29	19
Total		104			36			140	

Table 2: Percentage of Employees by Firm Size

Firm size	Percentage of employees[a]	Percentage of survey sample
Small companies	37	13
Medium-sized companies	15	21
Large companies	48	66

a. Source: Statistics Canada, Labour Force Survey, 2000 annual average

With a few exceptions, the regional and industrial mix of companies is similar to that of the actual breakdown of total business sector GDP (Tables 3 and 4). Sectorally, firms in the finance, insurance, and real estate sector were underrepresented. Regionally, the percentage of firms from Atlantic Canada is disproportionately large relative to that region's share of Canadian GDP. Each region's economic profile was considered when deciding which companies to visit. For example, the British Columbia office visited forestry companies and the Prairies office visited oil and gas companies. In other sectors, owing to the nature of their business, only regional companies exist. These include the construction industry, such as home builders, and part of the utilities sector, such as hydro companies, which generally provide services on a regional basis.

The survey and sample were designed to give a representative profile of Canadian companies. When examined by firm size, region, or GDP weight, the results are largely the same as those in the aggregate. For a discussion of potential biases, see Appendix A.

Table 3: Industry Weighting

Industry	Percentage of companies surveyed	Percentage of business-sector GDP[a]
Primary	10	8.1
Manufacturing	22.1	21.5
Construction	7.9	6.9
Transportation, communications, and utilities	15.7	14.2
Wholesale and retail trade	15.7	14.4
Finance, insurance, and real estate	9.3	19.6
Business and personal services	19.3	15.3

a. Shares in 1998 when the survey was taken.

Table 4: Number of Companies Visited by Region and that Region's GDP

	Atlantic	Quebec	Ontario	Prairies	B.C.	National	Total
Goods sector	5	7	14	7	8	15	56
Services sector	6	14	26	11	6	21	84
Total	11	21	40	18	14	36	140
Percentage of regional companies in survey	10.6	20.2	38.5	17.3	13.5		
Percentage of GDP[a]	6.0	21.7	40.6	18.5	12.8		99.6

a. Percentages do not sum to 100 because of rounding.

The first round of interviews was conducted in September 1998. In that first round, about 40 per cent of the firms were successfully interviewed. Companies that declined to participate or had conflicts were replaced with companies that had matching characteristics. The interviews were completed by December 1998.

3. Survey Results

In the second half of 1998, 140 Canadian companies were surveyed regarding restructuring in the 1980s and 1990s. The sample is roughly representative of the Canadian economy, with the number of firms from each geographical region and from each industry sector proportional to their weight in the overall economy. Appendix A discusses some sampling issues. The raw results are given in Appendix B. The survey questionnaire is shown in Appendix C.

3.1 The extent of restructuring

The broad results of the survey are clear: many Canadian firms restructured their operations in the 1980s and 1990s, with the degree of restructuring being greater in the 1990s than in the 1980s. Of the 140 companies surveyed, 87 per cent reported that they underwent a major restructuring in the 1990s and 36 per cent indicated that they did so in the 1980s (Table 5).[4] Over half of the respondents said that they restructured in the 1990s but not in the 1980s (Table 6). Of the group that answered in the affirmative for both decades, 68 per cent of the goods-producing sector and 90 per cent of the services sector reported that the extent of restructuring was greater in the 1990s than in the 1980s.

4. The survey results are reported as percentages in the text, whereas the absolute numbers are given in Appendix B.

In the primary industry and construction sectors, 100 per cent of respondents restructured in the 1990s. In four other sectors (manufacturing; transportation, communications, and utilities; trade; and business and personal services), over 80 per cent of the respondents indicated that they restructured in the 1990s, a considerably higher share than for the 1980s. An unexpected result, given the amount of investment in information technology, was that the finance, insurance, and real estate sector had the lowest incidence of restructuring in the 1990s. It is possible that this relatively low incidence was a result of the small sample size.

In the services sector, the proportion of firms restructuring increased significantly in the 1990s. Whereas only 27 per cent of the respondents in that sector indicated that they had restructured in the 1980s, 82 per cent said that they restructured in the 1990s—almost as high as the 93 per cent in the goods-producing sector.

Table 5: Percentage of Sample with Major Restructuring

Industry sector	1980s	1990s
Primary	50	100
Manufacturing	52	87
Construction	36	100
Transportation, communications, and utilities	27	82
Wholesale and retail trade	27	82
Finance, insurance, and real estate	31	69
Business and personal services	26	89
Goods-producing[a]	48	93
Services	27	82
Total	36	87

a. This sector is defined as the sum of the primary, manufacturing, and construction sectors.

Table 6: Percentage of Firms that Did/Did Not Restructure in Each Decade

	1980s, no 1990s, no	1980s, no 1990s, yes	1980s, yes 1990s, no	1980s, yes 1990s, yes	Total
Goods	1.4	19.3	1.4	17.9	40
Services	9.3	34.3	1.4	15.0	60
Total	10.7	53.6	2.8	32.9	100

3.2 What restructuring involved

Restructuring included various operational changes as well as workforce adjustments. The operational changes encompassed the size and location of operations, a narrowing of the business focus, and significant investments to alter methods of production.

New technology had a major impact on businesses throughout both decades, and the importance of technology can be seen in the survey results. In fact, the most common form of restructuring in both decades was to "invest in new technology." Of those that restructured, this type of change was identified by 50 per cent in the 1980s and by 65 per cent in the 1990s (Table 7).[5] The major changes in business processes included electronic messaging, collection of data on customer spending patterns, the centralization of vast amounts of information, supply-chain management, and automated manufacturing plants.

Table 7: Type of Restructuring (as a percentage of firms that restructured)[a]

	Goods sector		Services sector		Total	
	1980s	1990s	1980s	1990s	1980s	1990s
Invested in new technology	28	26	22	40	50	65
Reduced existing operations in Canada	6	21	12	21	18	43
Expanded existing operations in Canada	24	20	22	22	46	42
Contracted out some operations	8	18	6	22	14	40
Merged with another company	8	8	12	20	20	28
Expanded production outside Canada	10	13	6	13	16	26
Moved to fewer but larger establishments	4	8	8	16	12	24
Focused on a narrower range of products	2	12	8	11	10	23
Introduced different formats for retail outlets	2	3	4	17	6	21
Relocated some operations from Canada to other countries	16	5	2	7	18	12
Entered Canada	0	2	4	1	4	2
Number of companies that restructured	27	52	23	69	50	121

a. The percentages can sum to be greater than 100 per cent, since firms could select more than one answer.

5. The results in Tables 3, 4, and 7 are calculated as a percentage of respondents who indicated that they restructured, and not as a percentage of the complete sample of 140 firms. Since more firms restructured in the 1990s, the numerical differences between the 1980s and 1990s would be greater if the data were reported as a percentage of the "total number of firms" as opposed to a percentage of "those who restructured."

One interesting issue is the perceived business opportunities in domestic versus foreign markets. Of the companies that restructured in the 1990s, about the same percentage indicated that they "expanded existing operations in Canada" (42 per cent) as those that said they "reduced existing operations in Canada" (43 per cent). This is a significant change from the 1980s, where, among companies that restructured, 2 1/2 times more indicated that they expanded their Canadian operations than those that said they reduced them.

The 1990s business environment could be characterized, in part, by the "bigger is better" philosophy. Merging with other companies had a particularly high profile in sectors such as auto manufacturing, forest products manufacturing, finance, retail trade, and high-technology-related businesses. In theory, mergers allow companies to take advantage of new synergies and improved purchasing power, as well as a reduction of duplication in head-office functions and marketing. "Merged with another company" was identified by 20 per cent, or 10 companies, that restructured in the 1980s. During the 1990s, 28 per cent, or 34 companies, experienced a merger. Companies had also "moved to fewer but larger establishments." About one-quarter of companies that restructured in the 1990s did this.

Of the companies that restructured in the 1990s, about one in six increased operations outside Canada while at the same time reducing operations in Canada or relocating operations from Canada to other countries. About 5 per cent indicated that relocation of operations from Canada to other countries was their only form of restructuring.

"Contracted out some operations"—usually accounting, legal services, payroll, information-technology support, site management, and human resources—was also more common in the 1990s than in the 1980s. Firms expected that, by contracting out activities that were previously done in-house, they would have lower head-office overhead as well as lower costs for employee searches and compensation. In the 1980s, only 14 per cent of companies that restructured took advantage of this potential cost-saving, while in the 1990s, 40 per cent took this step.

One of the least-common types of restructuring in the 1980s—identified by only 6 per cent of respondents that restructured—was "introduced different formats for retail outlets," in some cases another example of "bigger is better." This percentage rose to 21 per cent for the 1990s. For the retail and wholesale trade sector, the result was more pronounced. The responses in this sector rose from 17 per cent for the 1980s to 56 per cent for the 1990s, reflecting more aggressive expansion strategies by "big-box" retailers in the 1990s, many of which were U.S. based.[6] In the

6. The term "big box" includes such formats as category killers and superstores. Big-box stores are defined mainly through the floor space and the merchandise selection. See Genest-Laplante (1998).

survey, this choice was aimed at the retail industry but was interpreted by other sectors to include the retail operations of their business. These include financial companies, utilities, and personal services such as restaurants and theatres.

The types of restructuring that garnered the biggest increase in the frequency of response from the 1980s to the 1990s were the introduction of different retail formats, contracting out operations, reducing Canadian operations, and focusing on a narrower range of products.

3.3 Reasons for restructuring

To understand the reasons for restructuring, it is useful to put this period in context. The 1980s and 1990s included free trade agreements, first with the United States (FTA) and then with Mexico (NAFTA); significant technological advances and their associated price declines; the general availability of the Internet; the entrance into Canada of a number of large U.S.-based retailers; a speculative real estate bubble in the late 1980s and its subsequent correction in the early 1990s; as well as policy changes such as replacement of the manufacturers' sales tax with the GST, and the introduction of the Bank's goal of price stability.

In our survey, businesses were asked to give their reasons for restructuring and to indicate as many choices as were applicable (Table 8). In general, firms believed that they needed to become more flexible, and, therefore, had to change their operations.

Table 8: Reasons for Restructuring as a Percentage of Firms that Restructured[a]

	Goods sector		Services sector		Total	
	1980s	1990s	1980s	1990s	1980s	1990s
Availability of new technology	18	17	22	29	40	46
Greater competition from Canadian firms	12	16	20	30	32	45
Greater competition from American firms	16	14	6	17	22	31
Affordability of new technology	4	9	12	21	16	30
Desire to compete globally	10	15	6	13	16	28
Change in government regulation	6	7	18	17	24	24
Greater competition from outside North America	14	14	4	4	18	18
U.S./Canada Free Trade Agreement		12		4		16
Major change in exchange rate	0	3	0	2	0	5
Lack of flexibility of Canadian workers relative to American workers	2	2	2	2	4	3
North American Free Trade Agreement		2		0		2
Number of companies that restructured	27	52	23	69	50	121

a. Figures can sum to more than 100 per cent, since firms could select more than one answer.

3.3.1 Availability and affordability of new technology

The form of restructuring most frequently identified by respondents was "invested in new technology." When asked to indicate which factors caused businesses to restructure their Canadian operations, the most common response from firms was the *availability* of new technology in both the 1980s (40 per cent) and in the 1990s (46 per cent) (Table 8). Interestingly, the *affordability* of new technology was not identified as frequently in either decade, implying that it was not the declining price of technology that was the primary incentive to become more efficient, but rather that technological advances provided opportunities for improved efficiency. Nevertheless, it is significant that 30 per cent of restructuring firms indicated affordability as a factor in the 1990s.

The "availability of new technology" was most frequently identified by firms in transportation, communications, and utilities; finance, insurance, and real estate; manufacturing; and primary industries. The extent to which technology affected communications, banking, and supply-chain management and manufacturing is well understood. It is interesting, however, to see that technology was identified by almost half of the firms that restructured in the primary sector as well. In conversations with primary sector companies, changes in technology were reported to have facilitated many innovations in the acquisition and processing of products.

A significant impact of the technological revolution was the greater ease of communication. In many cases, this resulted in the need for only one plant for the whole of North America, compared with an earlier time when it was necessary to have multiple plants to service each region. The availability of instantaneous communications greatly enhanced the efficiency of inventory management, wholesaling, and distribution. Technology also permitted the centralization of information. In the financial sector, this centralization led to branches relinquishing account information to the head office, thus reducing the need for branch staff. The centralization of administration, such as payroll, at one location was a change not specific to any one industry.

3.3.2 Competitive environment

Competition also compelled firms to restructure. "Greater competition from Canadian firms" was the second-most-common reason cited (after the "availability of new technology") for restructuring in both decades. It was identified by 32 per cent of the businesses that restructured in the 1980s, and by 45 per cent of those that did so in the 1990s. For the 1990s, 31 per cent of firms also identified "greater competition from American firms" as a reason for restructuring. The "desire to compete globally" was also important in the 1990s, with 28 per cent identifying this factor.

In the wholesale and retail trade sector, competition was a very significant reason for restructuring. More than half of the wholesale and retail respondents indicated "greater competition from American firms," and two-thirds indicated "greater competition from Canadian companies" as reasons for restructuring. In this sector, only three of the 18 firms surveyed said "greater competition from outside North America" was important enough to warrant restructuring.

The FTA and NAFTA were identified as reasons by only 18 per cent of firms. Of the 22 firms that cited free trade, almost half were from the manufacturing sector, which is not surprising, given the export orientation of Canadian manufacturing firms. Interestingly, 20 per cent of those citing free trade came from either the retail and wholesale or the commercial services sectors, and the remaining 30 per cent were from the primary industry sector—most of which were not directly affected by the FTA. Many in the services and retail sectors were not directly affected by the removal of tariffs, but instead regarded free trade as a sign of future international competition. The globalization of commodity markets was evident in the primary industries, since this was the largest group to identify "greater competition from outside North America" as a factor in restructuring.

3.3.3 Regulatory changes

During the 1980s and 1990s, changes in government regulation occurred in many industries. These included the deregulation of air, rail, and trucking as well as of the telecommunications and financial sectors. In addition, hydro- and gas-delivery services were privatized. In our survey, several companies, primarily concentrated in the transportation, communications, and utilities sector, identified deregulation by the federal government as a reason for their need to restructure and downsize. Some companies went through dramatic cost-control processes to deal with both the loss of monopoly power and the desire to compete internationally. "Change in government regulation" was identified by 12 companies in the 1980s, (24 per cent of the companies that restructured) and by 29 companies in the 1990s (also 24 per cent).

3.4 Other commentary

Some respondents from the construction sector indicated that the increases in interest rates during recession periods caused hardship for them and that restructuring was undertaken to enable them to better cope with similar shocks in the future. They cited factors that led to restructuring but which were not explicitly included on the survey questionnaire, such as the inflexibility of unions and the severe downturn of the real estate market in the late 1980s.

Other respondents commented that restructuring was brought on not by any one single factor, but by a number of different shocks occurring at once. For example, one manufacturing company said that the sudden shift in focus from a Canadian to a North American market motivated them to become more efficient. However, their efforts were hampered by higher financing costs because of increased interest rates. In general, many of the companies interviewed had become better equipped to handle financial downturns, and some noted that the low-inflation environment of the 1990s had helped them to identify inefficiencies and to become more productive.

Many respondents were still in the process of restructuring. For example, several companies that had operated across Canada were in the process of closing their Canadian head offices and transferring those operations to their U.S. parent's head office, leaving only a skeleton staff to liaise between the two. One firm noted that this development essentially made the Canadian office a branch operation of the U.S. company and eliminated many jobs for highly skilled, professional workers in Canada.

3.5 Employment effects

The Canadian economy went through recessions in both the early 1980s and early 1990s. Not only was the recovery in output slower in the 1990s than in the 1980s, but the sustained expansion in paid employment did not really get underway until 1997. This development may have been influenced by an acceleration of restructuring. One objective of this survey was to assess the changes in the labour force attributable to major restructuring initiatives.

Restructuring can affect the labour force in several ways: companies could require a higher overall skill level, general reductions in the workforce could lead to a higher rate of frictional unemployment, and those who are unemployed for a long period could experience difficulty re-entering the workforce. Our survey attempts to quantify some of these effects.

The results of the survey indicate that many firms did, in fact, change the level of employment as part of their restructuring.[7] Over twice as many firms that restructured in the 1990s indicated that they reduced rather than increased employment (45 per cent said "employment was reduced," compared with only 21 per cent that said "employment was increased"). The difference is less apparent for firms that restructured in the 1980s: 38 per cent said "employment was reduced," compared with 24 per cent that increased employment (Table 9).

7. The questionnaire requested that firms control for the cyclical effects in employment and concentrate only on the gains and losses caused by restructuring.

Table 9: Effect of Restructuring on Employment

	Effect as a percentage of firms that had restructured		Effect as a percentage of all firms in the survey[a]	
	1980s	1990s	1980s	1990s
Employment was reduced	38	45	14	39
Employment was increased	24	21	9	19
Employment fell initially but eventually increased, because of an improved long-term competitive position	6	17	2	14
No effect	24	17	74	28
Employment increased initially but was later found to be excessive and was cut back	6	2	2	2
Number of companies	50	121	140	140

a. The results for "no effect" include those firms that had not gone through a major restructuring.

These percentages do not include the number of firms that said "employment fell initially but eventually increased" (17 per cent in the 1990s) or "employment increased initially but was later found to be excessive and was cut back" (2 per cent in the 1990s). If these two categories are included, the initial effect is even more negative than the effect in the long run, when employment levels ultimately climb because of improved long-term competitive positions. Only 24 per cent of companies that restructured in the 1980s said that there was "no effect" on their workforce, and this share declined to 17 per cent for firms that restructured in the 1990s.

The industry most affected in the 1980s was manufacturing, with 50 per cent of firms saying that employment had declined. In the 1990s, the transportation, communications, and utilities sector had the biggest declines in employment, with two-thirds of companies cutting staff, while manufacturing again reported that about 50 per cent of companies had lower employment.

To assess the impact of employment losses from restructuring on the economy as a whole, a useful proxy is the percentage of firms that had decreased their workforces as a proportion of *all* companies surveyed. The differences between the 1980s and 1990s are more pronounced when this measure is used. In the 1980s, 74 per cent of companies surveyed did not change the level of employment as a result of structural factors, whereas in the 1990s this figure dropped to 28 per cent (Table 5). Considering only the initial effects on employment, the net effect can be seen by adding the percentage of firms that indicated that employment fell or fell only initially (39 per cent and 14 per cent) and subtracting those that said employment rose or rose only initially (19 per cent and 2 per cent.) Thus, the net initial effect was that 32 per cent of all firms reduced employment in

the early 1990s. However, the extent of those declines was mitigated by the fact that some firms also outsourced services (see the following sections).

3.5.1 Why did firms reduce staff?

Firms that indicated reductions in employment (19 in the 1980s and 55 in the 1990s) were asked to give a reason for the decrease. Foremost among them was competitive pressures, and this influence intensified in the 1990s. In the 1980s, 63 per cent of firms where employment declined indicated that "competition squeezed profit margins making it necessary to reduce the cost of labour inputs," and 42 per cent cited "investment in new technology." In the 1990s, the dominant reason, given by 80 per cent of firms that reduced staff, was again that "competition squeezed profit margins." This was a significantly higher proportion than for the second-most-common reason, "investment in new technology" (45 per cent of firms that reduced staff) (Table 10). Some commentary from companies supported the view that technology allowed them to substitute capital for labour. For example, a business-service company reported that staff was cut by 10 per cent purely as a result of efficiency gains from computer technology. Several companies in the primary sector said that they were moving towards a capital-intensive approach, whereas previously their operation had been primarily labour-intensive.

Table 10: Reasons for Decline in Employment as a Percentage of Firms that Indicated Employment was Reduced[a]

	Goods sector		Services sector		Total	
	1980s	1990s	1980s	1990s	1980s	1990s
Competition squeezed profit margins, making it necessary to reduce the cost of labour inputs	42	44	21	36	63	80
Investment in new technology	32	29	11	16	42	45
Wage rates not consistent with productivity	26	20	5	18	32	38
Payroll tax increases could not be passed on	11	16	5	4	16	20
Shortage of skilled labour	0	7	0	2	0	9
Number of companies with employment losses	14	26	5	29	19	55

a. Figures can sum to more than 100 per cent, since firms could select more than one answer.

Other reasons for staff cutbacks were cited by relatively few respondents. These included "payroll tax increases that could not be passed on" and a "shortage of skilled workers." Although payroll taxes are often cited as an impediment to the growth of employment, the survey results suggest that payroll taxes were not a major reason for companies to restructure and decrease their workforces. One possible explanation is that the survey took a long-term perspective, and the

effects of payroll taxes are likely felt over the short term. Also, some respondents could have viewed wage rates as being equivalent to labour costs, which include payroll taxes. There was some overlap between the firms that cited "wage rates not consistent with productivity" and "payroll tax increases could not be passed on," although this did not come through in conversations with the companies' representatives.

3.5.2 Change in the composition of the labour force

The survey also tried to get a sense of the extent of "churning," or change in the composition of the workforce. The survey results show little evidence of churning in the 1980s. The type of change identified most frequently was "skill mix was changed in favour of highly skilled workers," but even this was identified by only 26 per cent of firms that restructured (Table 11). In the 1990s, this change was also identified most frequently, although by a much higher proportion (58 per cent).

Table 11: Effect on Composition of Labour Force as a Percentage of those that Restructured[a]

	Goods		Services		Total	
	1980s	1990s	1980s	1990s	1980s	1990s
Skill mix was changed in favour of highly skilled workers	16	25	10	33	26	58
Some employees were replaced by contract workers	0	14	0	18	0	32
Greater reliance on temporary workers	0	8	2	13	2	21
Proportion of part-timers was increased	2	2	2	12	4	14
Proportion of part-timers was decreased	4	4	0	3	4	7
Number of companies that restructured	27	52	23	69	50	121

a. Figures can sum to more than 100 per cent, since firms could select more than one answer.

The need for more highly skilled workers is closely related to the widespread introduction of technology as a business tool, and is consistent with investment in new technology being the method of restructuring identified most frequently. A common theme in the commentary was that job duties were changing, and companies required employees to be adaptable and to change career paths more frequently than ever before. Some firms indicated that many employees used to work in "back office" operations such as payroll or site management, and that those duties had been outsourced. In those firms, all the employees had become front-line workers, client-focused and working on supporting the business and building client relations. Some financial sector

companies said that they had reduced branch jobs, but had more than made up for the job losses by increasing staff to deal with increased computerization at the head office.

Other changes in employment included the use of contract workers to replace full-time employees. No firms reported this change for the 1980s, but it was the second-most-common change in the composition of employment in the 1990s, reported by 32 per cent of firms. The proportion of firms that increased their use of part-time workers and temporary workers was also higher in the 1990s than in the 1980s. The motivation was for companies to achieve a higher degree of flexibility.

4. Comparison with Industry Canada Study

A similar company survey was in progress by Industry Canada (Magun 1998) at the time that Bank staff decided to conduct this project.[8] There were significant differences in both the goals of the two projects and the methodology and survey style. As a result, the Industry Canada survey presented some results that differ from those in our survey. This section discusses the Industry Canada survey and highlights some differences between it and the Bank's survey.

Industry Canada surveyed 63 publicly traded corporations in Ontario, Quebec, B.C., Alberta, Saskatchewan, Nova Scotia, and Prince Edward Island that had indicated in company documents that they had restructured. That study's sample was chosen from a CD-ROM file of financial and management information released between 1994 and 1995. This file contained 10,000 Canadian companies and the sample was created by searching for any key words that were identified as indicating a form of restructuring.[9] The sample was designed primarily to determine the effects of restructuring on firms that had engaged in such activities. From an industry stratum, a subset was contacted by phone to discuss restructuring.

The period covered by the Industry Canada survey is perhaps the most significant difference from the Bank's survey, which focused on longer-term changes. It also inquired about firms' experiences during the 1980s and 1990s, to explore the extent and type of restructuring that occurred in those two decades and determine whether any differences between them were reflected in the effects on the labour market. Other differences include Industry Canada's

8. A third company survey was also published around that time (see Bank of Montreal, Harris Bank, and Bancomer 1998). However, that survey did not refer to effects from restructuring, but rather to the change in employment since the creation of NAFTA. The survey did not attempt to isolate the effects of the FTAs from either the cyclical effects or trend growth.
9. The words and phrases included "restructuring," "downsizing," "re-engineering," "total quality management," and "TQM."

emphasis on larger Canadian firms and on those that make public statements. The focus of the Bank's survey was to study the effects of restructuring on the overall economy (including the impact on labour markets and productivity, so it did not restrict the sample to firms that previously indicated they had restructured. In contrast, Industry Canada wanted to study only how restructuring affected firms that had restructured, including the forms of restructuring; the amount of time taken; the effects on revenues, costs, payroll taxes, and employment; and factors that contribute to restructuring.

The results of our survey are broadly similar to those obtained in the Industry Canada survey with regards to employment changes. In the Industry Canada study, where all companies that participated were those that had restructured, 44 per cent of companies reported a decline and 29 per cent reported an increase in employment. This is very similar to the results of the Bank's survey, in which 45 per cent of the 121 companies that had restructured in the 1990s reported that "employment was reduced" and 21 per cent indicated that "employment was increased." Despite this one similarity, there are different conclusions.

Magun concludes that "one fact stands out: on average, restructuring has created relatively more jobs than it has eliminated." In his study, restructuring has resulted in employment rising by an average of 80 per cent in companies with positive employment effects, compared to an average decline of 31 per cent in companies with negative employment effects. Because there was a higher percentage change in the companies with increased employment than in those with decreased employment, the survey concludes that there was a net increase in employment as a result of restructuring. However, there appears to be no adjustment or weighting of the employment percentage changes based on firm sizes. It is thus possible that there are biases in the calculations on which his conclusion is based. In the Bank's survey, companies were asked to provide the percentage increase or decrease in employment, if possible. However, no conclusion can be drawn, since few companies answered with a percentage change.

5. The Business Outlook

The results of our survey show that firms went through intensive restructuring over the 1990s. Many companies cut employment and changed the mix of employees in favour of those who were more highly skilled, invested in productivity-enhancing information technology, and contracted out operations to specialists. When asked about their future prospects and plans, many responded that they were optimistic. Though the survey did not ask about productivity specifically, there is, in the commentary, a theme of enhancing productivity and continuous improvement to succeed in the competitive marketplace. Examples included further technological investment, exposure to

international markets, and a continuing search for efficiencies through consolidation and strategic alliances. Technical changes include an addition to mass-scale production, moving to lower-cost production in other areas of Canada or overseas, mechanization, reduction of the workforce while maintaining production levels, further improvements in information technology, and better information exchange. Manufacturing and primary sector companies indicated that they intended to use the Internet more productively, use machines to replace some service delivery, and improve distribution networks. Service sector companies, including financial sector and travel agencies, cited new distribution channels, such as electronic commerce. The common theme was to use technology in a way that would either improve or make more efficient the existing way of doing business, and to use technology to attract customers and keep in touch with existing ones.

Other methods of improving productivity included the addition of more types of products, specifically value-added products. Continued outsourcing has a potentially positive outcome if specialized companies can deliver certain operations more efficiently.

Companies expected further increases in competitive pressures and increased exports to new markets, both in the free-trade zone and overseas, and were acutely aware of the need to improve themselves to survive. A large number of companies also expected mergers and acquisitions to continue. Some companies expected to have a foreign, particularly U.S., owner, while others cited further consolidation in the industry in general.

Finally, companies referred increasingly to the more prevalent use of variable compensation packages. In fact, judging from our survey, the increased use of contract and part-time workers gives firms the flexibility to respond to downturns in the economy.

At the time of the survey, the optimism expressed was not supported by evidence of a long period of sustainable growth. When the economy's performance from 1998 to 2000 is considered, a clearer picture of sustained growth emerges, suggesting that some of the negative impacts of restructuring are now over.

Given the restructuring that took place over the 1990s, and the resulting improvements to businesses, actual productivity growth has been less than some might have expected. The survey results show that corporate restructuring initiatives, such as investing in new technology and moving to fewer, but larger, establishments, were undertaken to enhance productivity. Indeed, given the structural changes that have taken place since the late 1980s (such as free trade, deregulation, and a shift to a low-inflation environment), higher productivity could have been expected.

There are a number of possible reasons why productivity was not higher in the 1990s. One is the existence of lags between restructuring and the eventual realization of productivity gains (David 1991, Lipsey 1996). For example, following a technological innovation, it takes time to refine the applications that will produce efficiencies, integrate them, and train workers to full proficiency. Another reason could be that Canada's economic recovery was relatively weak and, given that cyclical productivity improvements are difficult to separate from structural ones, improvements in productivity growth from restructuring may not yet be readily apparent. In fact, productivity did pick up in the late 1990s, and it is possible that further gains stemming from restructuring are still to come.

6. Conclusions

While this firm-level survey did not use a scientific, statistical sample of the Canadian economy, it was structured to be roughly representative of the business sector. The results may, therefore, be seen as indicative of the trends that were occurring in the economy during the first half of the 1990s.

The survey results clearly point to extensive restructuring in both the 1980s and the 1990s in the firms contacted, with the 1990s experiencing a more prolonged and deeper level of change. Over four-fifths of the companies surveyed reported a major restructuring in the 1990s, and over two-thirds of those who restructured in both decades indicated that restructuring was greater in the 1990s. For the majority of firms that did restructure, their restructuring initiatives involved heavy investment in new technology. Indeed, changing technology was the clearest manifestation of restructuring, and this came about not primarily because of affordability, but because of the availability of new technology. Competitive forces were also a factor in the decision to restructure.

The majority of firms that had restructured in the 1990s had also cut their workforces. This may have been a temporary phenomenon, however, because a number of firms also indicated that they had since increased their level of employment. Indeed, the strong growth in paid employment between early 1997 and 2000 suggests that even if a period of major restructuring had an initial dampening effect on employment growth, eventually the structural changes will pay off in greater employment growth. Employers also demanded a higher skill mix and increased their use of contract workers. Thus, for those currently in the labour force as well as for those who will soon enter it, there will be an ongoing need to improve their skill sets to remain competitive, up-to-date, and employable. Commentary from discussions with industry representatives since the survey was completed confirm these results.

The results provide some evidence that, in the wake of a major change in their operating environment (for example, from trade liberalization or deregulation), firms are more prepared to embark on a major restructuring of their operations than would otherwise be the case. The types of restructuring that were the most common among the companies surveyed—investing in new technology and adjusting the size or quality of their workforce—may not have had an immediate payoff. The expectation of improved performance in the future, however, suggests that, for the economy as a whole, the acceleration in both output and employment since 1996 may give way to an increase in productivity growth.

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Appendix A: Sampling Issues

Both the sample of companies in the survey and the survey results have potential biases, for a number of reasons. However, many of these problems are diminished by the survey method; i.e., face-to-face discussions. Some sampling problems were mentioned in section 2 of the main text: underrepresentation of small firms and firms in the finance, insurance, and real estate sector. With this type of survey, it is difficult to assess the net effect of any bias in the survey results. However, some errors could be offsetting and could thus reduce any potential bias. The results indicate only the kinds of adjustments that companies have had to make. The value of this survey is derived from the analysis of all the results, including the verbal commentary.

As stated in section 2, the sample of firms overrepresents large companies relative to their share of employment. This characteristic could bias the conclusions if large firms had significantly different restructuring behaviour than smaller firms. To test for this effect, the responses by firm size were weighted by their employment shares (from Table 2). As Tables A-1 and A-2 show, the weighted averages for key questions are very similar to the unweighted responses discussed in the main text.

Table A-1: Percentage of Sample with Major Restructuring by Firm Size[a]

	1980s		1990s	
Size	Yes	No	Yes	No
Large	38	62	89	11
Medium	28	72	86	14
Small	37	63	74	26
Average of all companies	36	64	86	14
Weighted by employment shares	36	64	83	17

a. Question 1 asks whether the company underwent major restructuring in the 1980s or the 1990s in their Canadian operations.

Table A-2: Effect of Restructuring on Employment by Firm Size[a]

Size	1980s		1990s	
	Decrease	All other responses	Decrease	All other responses
Large	17	83	41	59
Medium	7	93	31	69
Small	15	84	32	68
Average of all companies	15	85	38	62
Weighted by employment shares	15	85	36	64

a. Question 5 asks whether restructuring affected the size of the company's workforce.

The population of companies from which the subset was chosen is the group that did not go out of business or leave Canada entirely between 1980 and 1998. Firms that went out of business would not, of course, have been captured in the sample, and, consequently, any effort on their part to restructure to stay in business would not be included. However, regarding mergers and takeovers of companies, the wording in question 5 avoided another potential bias that could have arisen where companies participated in a merger. Any subsequent job losses could be accurately reflected, since estimates of job losses at the merged company were made relative to the pre-merger labour force.

Because it was possible that firms in the survey might not have been in existence for the entire period under consideration, it was conceivable for firms to not have a perspective when comparing the 1980s and the 1990s. This is expected to have had a minimal effect on the results, since this issue was considered when deciding which companies to contact.

In addition, it was possible to confuse losses of employment owing to a cyclical contraction in demand with being consistent with restructuring, when in fact the survey did not intend this. Question 5 was therefore worded to ask respondents to control for cyclical changes in employment. In the instructions, firms were asked to respond to changes that were a "bigger adjustment than would have been warranted by the state of the business cycle."

Institutional memory loss is another issue. The information obtained was often dependent on the person interviewed in each company, most commonly the senior financial representative in the company. In some cases, because of staff turnover, the vice-president of finance may not have

been with the firm during the whole period. Some information may have been passed on by word of mouth only, since records of earlier years may not have been available. Also, a person's memory is not perfect and it is possible that respondents tended to place heavier emphasis on recent events than on ones that occurred years ago. Questionnaires were sent in advance of the meeting, and thus respondents were able to consult others if needed. There is, however, no survey technique to completely eliminate this type of bias. The best method to ensure accurate responses is to engage in a discussion and clearly understand pressures that were facing the company when decisions were being made.

Appendix B: Raw Results

The tables in this appendix use the following abbreviations in their column headings: Pri = Primary; Mfg = Manufacturing; Cons = Construction; TSCU = Transportation, Storage, Communications, and Utilities; Trade = Retail and Wholesale Trade; FIRE = Finance, Insurance, and Real Estate; Svces = Other Commercial Services.

Q1: Have you undergone major restructuring in your Canadian operations?

Table B-1: Responses to Question 1, 1980s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
No	7	15	7	16	16	9	20	29	61	90
Yes	7	16	4	6	6	4	7	27	23	50
Total	14	31	11	22	22	13	27	56	84	140

Table B-2: Responses to Question 1, 1990s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
No	0	4	0	4	4	4	3	4	15	19
Yes	14	27	11	18	18	9	24	52	69	121
Total	14	31	11	22	22	13	27	56	84	140

Table B-3: Responses to Question 1, Permutations of 1980s/1990s

1980s, 1990s	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svce	Goods Sector	Services Sector	Total
No, no	0	2	0	3	4	4	2	2	13	15
No, yes	7	13	7	13	12	5	18	27	48	75
Yes, no	0	2	0	1	0	0	1	2	2	4
Yes, yes	7	14	4	5	6	4	6	25	21	46
Total	14	31	11	22	22	13	27	56	84	140

Q2: *Was restructuring greater in the 1990s than in the 1980s?*

Table B-4: Responses to Question 2, taking only firms that restructured in both periods

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
Yes	4	9	4	5	6	3	5	17	19	36
No	3	5	0	0	0	1	1	8	2	10
Total	7	14	4	5	6	4	6	25	21	46

Q3: What type of restructuring did you do? (1980s)[1]

Table B-5: Responses to Question 3, 1980s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
a	4	2	2	0	1	0	0	8	1	9
b	0	3	0	1	3	1	1	3	6	9
c	2	2	1	0	0	0	3	5	3	8
d	1	8	3	4	3	2	2	12	11	23
e	0	0	0	0	0	2	0	0	2	2
f	1	0	1	1	1	1	1	2	4	6
g	0	1	0	1	1	0	0	1	2	3
h	1	2	1	2	1	2	1	4	6	10
i	5	7	2	4	3	2	2	14	11	25
j	2	2	0	0	1	0	2	4	3	7
k	0	1	0	1	0	0	3	1	4	5
l	0	2	0	0	0	0	1	2	1	3
Total	16	30	10	14	14	10	16	56	54	110

a) Relocated some operations from Canada to other countries
b) Reduced existing operations in Canada
c) Expanded production outside Canada
d) Expanded existing operations in Canada
e) Entered Canada
f) Moved to fewer but larger establishments
g) Introduced different formats for retail outlets
h) Merged with another company
i) Invested in new technology
j) Contracted out some operations
k) Focused on a narrower range of products
l) Other

1. Firms were able to select more than one response.

Q3: What type of restructuring did you do? (1990s)[2]

Table B-6: Responses to Question 3, 1990s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
a	2	4	0	1	4	1	2	6	8	14
b	8	15	3	9	7	2	8	26	26	52
c	5	9	2	3	4	3	6	19	16	35
d	3	16	5	5	9	5	8	24	27	51
e	1	0	1	0	0	1	0	2	1	3
f	2	6	2	6	6	3	4	10	19	29
g	1	3	0	4	10	4	3	4	21	25
h	1	6	3	5	6	6	7	10	24	34
i	8	19	4	14	13	7	14	31	48	79
j	5	14	3	6	9	4	8	22	27	49
k	4	10	1	4	1	3	5	15	13	28
l	5	3	1	1	3	1	8	9	13	22
Total	45	105	25	58	72	40	73	178	243	421

a) Relocated some operations from Canada to other countries
b) Reduced existing operations in Canada
c) Expanded production outside Canada
d) Expanded existing operations in Canada
e) Entered Canada
f) Moved to fewer but larger establishments
g) Introduced different formats for retail outlets
h) Merged with another company
i) Invested in new technology
j) Contracted out some operations
k) Focused on a narrower range of products
l) Other

2. Firms were able to select more than one response.

Q4: What factors caused you to restructure your Canadian operations? (1980s)[3]

Table B-7: Responses to Question 4, 1980s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
a	4	5	0	4	3	1	3	9	11	20
b	2	0	0	2	1	0	3	2	6	8
c: n/a										
d: n/a										
e	2	5	0	0	2	0	0	7	2	9
f	3	5	0	0	1	0	2	8	3	11
g	2	3	1	3	3	2	2	6	10	16
h	2	2	1	1	1	1	0	5	3	8
i	1	2	0	5	1	2	1	3	9	12
j	0	0	0	0	0	0	0	0	0	0
k	1	0	0	0	0	1	0	1	1	2
l	0	4	2	0	1	1	4	6	6	12
Total	17	26	4	15	13	8	15	47	51	98

a) Availability of new technology
b) Affordability of new technology
c) US/Canada Free Trade Agreement
d) North American Free Trade Agreement
e) Greater competition from outside North America
f) Greater competition from American firms
g) Greater competition from Canadian firms
h) Desire to compete globally
i) Change in government regulation
j) Major change in exchange rate
k) Lack of flexibility of Canadian workers relative to American workers
l) Other

3. Firms were able to select more than one response.

Q4: What factors caused you to restructure your Canadian operations? (1990s)[4]

Table B-8: Responses to Question 4, 1990s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
a	6	13	2	13	7	6	9	21	35	56
b	5	3	3	6	7	4	8	11	25	36
c	5	9	0	0	3	0	2	14	5	19
d	2	1	0	0	0	0	0	3	0	3
e	8	9	0	0	3	1	1	17	5	22
f	4	13	0	5	10	2	3	17	20	37
g	5	10	4	10	12	5	9	19	36	55
h	8	8	2	3	4	4	5	18	16	34
i	1	3	4	9	5	2	5	8	21	29
j	0	3	1	0	2	0	0	4	2	6
k	1	1	0	0	0	1	1	2	2	4
l	3	7	5	5	2	3	10	15	20	35
Total	48	80	21	51	55	28	53	149	187	336

a) Availability of new technology
b) Affordability of new technology
c) US/Canada Free Trade Agreement
d) North American Free Trade Agreement
e) Greater competition from outside North America
f) Greater competition from American firms
g) Greater competition from Canadian firms
h) Desire to compete globally
i) Change in government regulation
j) Major change in exchange rate
k) Lack of flexibility of Canadian workers relative to American workers
l) Other

4. Firms were able to select more than one response.

Q5: Did the types of restructuring included in Question 3 affect the size of your work force? (e.g. did you have a bigger adjustment than would have been warranted by the state of the business cycle?) In the case of a merger or takeover, the work force refers to the combined pre-merger operations.

Table B-9: Responses to Question 5, 1980s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
a	5	8	1	2	2	0	1	14	5	19
b	2	0	2	0	3	3	2	4	8	12
c	0	3	0	0	0	0	0	3	0	3
d	0	1	0	1	0	0	1	1	2	3
e	0	3	1	3	1	1	3	4	8	12
Total	7	15	4	6	6	4	7	26	23	49

Table B-10: Responses to Question 5, 1990s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
a	6	13	7	12	7	2	8	26	29	55
b	3	2	0	3	5	6	7	5	21	26
c	2	9	0	2	4	0	3	11	9	20
d	1	1	0	0	1	0	0	2	1	3
e	2	2	4	2	3	1	6	8	12	20
Total	14	27	11	19	20	9	24	52	72	124

a) Employment was reduced
b) Employment was increased
c) Employment fell initially, and eventually increased due to improved long-run competitive position
d) Employment increased initially, but was later found to be excessive and was cut back
e) No effect on employment levels

Q6: Did the types of restructuring included in Question 3 affect the composition of your work force? [5]

Table B-11: Responses to Question 6, 1980s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
a	3	5	0	2	1	2	0	8	5	13
b	0	0	0	0	0	0	0	0	0	0
c	0	0	0	0	0	0	1	0	1	1
d	1	0	0	0	1	0	0	1	1	2
e	0	1	1	0	0	0	0	2	0	2
f	2	4	2	3	1	1	4	8	9	17
Total	6	10	2	4	3	3	5	19	18	37

Table B-12: Responses to Question 6, 1990s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
a	9	18	3	10	8	7	15	30	40	70
b	5	9	3	6	6	3	7	17	22	39
c	2	5	3	6	2	3	5	10	16	26
d	2	1	0	3	5	2	4	3	14	17
e	0	4	1	1	1	1	1	5	4	9
f	2	5	3	2	1	0	3	10	6	16
Total	20	42	13	28	23	16	35	75	102	177

a) Skill mix was changed in favour of higher skilled workers
b) Some employees were replaced by contract workers
c) Greater reliance on temporary workers
d) Proportion of part-timers was increased
e) Proportion of part-timers was decreased
f) Other

5. Firms were able to select more than one response.

Q7: Following your response to Question 5, if the net result was a reduction in the size of the work force or of hours, which of the following factors, if any, had a significant influence on the decision?[6]

Table B-13: Responses to Question 7, 1980s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
a	2	3	0	1	0	0	0	5	1	6
b	1	1	0	0	0	0	1	2	1	3
c	0	0	0	0	0	0	0	0	0	0
d	2	4	0	1	0	1	0	6	2	8
e	5	3	0	2	1	1	0	8	4	12
f	0	2	0	0	0	0	1	2	1	3
Total	10	13	0	4	1	2	2	23	9	32

Table B-14: Responses to Question 7, 1990s

	Pri	Mfg	Cons	TS CU	Trade	FIRE	Svces	Goods Sector	Services Sector	Total
a	5	4	2	4	1	1	4	11	10	21
b	3	6	0	0	1	1	0	9	2	11
c	2	1	1	0	0	0	1	4	1	5
d	3	13	0	6	1	1	1	16	9	25
e	7	15	2	7	6	3	4	24	20	44
f	0	5	4	2	1	0	4	9	7	16
Total	20	44	9	18	10	6	14	73	49	122

a) Wage rates were not consistent with productivity
b) Payroll tax increases could not be passed on.
c) Shortage of skilled workers
d) Investment in new technology
e) Competition squeezed profit margins making it necessary to reduce the cost of labour inputs
f) Other

6. Firms were able to select more than one response.

Appendix C: Questionnaire[7]

Industry Questionnaire on Restructuring

While most businesses are in the process of change on an ongoing basis, from time to time there are major events, such as a change in government regulation, the removal of trade barriers or a currency realignment, that lead some companies or entire sectors to rethink how they do business. The results may be a decision to relocate, to replace part of the work-force by new machinery or technology, or to focus on a core business rather than operating in various sectors. In order to better understand the way such changes have affected Canadian product and labour markets, we are requesting your assistance by completing this questionnaire.

No firms will be identified in our report and information will be used in such a way that readers will not be able to determine who took part in the survey. A copy of the results of the survey will be made available to you.

While many of the potential answers may be applicable to your firm, please check only the significant ones.

7. This appendix shows the questionnaire given to participating firms.

1. Have you undergone major restructuring in your Canadian operations?

	Yes	No
from 1980 to 1989?	_____	_____
since 1989?	_____	_____

2. Was restructuring greater in the 1990s than in the 1980s?

Yes	No
_____	_____

3. What type of restructuring did you do?

	1980s	**1990s**
Relocated some operations from Canada to other countries	_____	_____
Reduced existing operations in Canada	_____	_____
Expanded production outside Canada	_____	_____
Expanded existing operations in Canada	_____	_____
Entered Canada	_____	_____
Moved to fewer but larger establishments	_____	_____
Introduced different formats for retail outlets	_____	_____
Merged with another company	_____	_____
Invested in new technology	_____	_____
Contracted out some operations, *(e.g., accounting services; trucking and/or warehousing; etc.)*	_____	_____
Focused on a narrower range of products	_____	_____
Other *(please elaborate)*	_____	_____

4. What factors caused you to restructure your Canadian operations? (Check only the most important.)

	1980s	1990s
Availability of new technology	_____	_____
Affordability of new technology	_____	_____
US/Canada Free Trade Agreement		_____
North American Free Trade Agreement		_____
Greater competition from outside North America	_____	_____
Greater competition from American firms	_____	_____
Greater competition from Canadian firms	_____	_____
Desire to compete globally	_____	_____
Change in government regulation	_____	_____
Major change in exchange rate	_____	_____
Lack of flexibility of Canadian workers relative to American workers.	_____	_____
Other *(please elaborate)*	_____	_____

5. Did the types of restructuring included in Question 3 affect the size of your work force? (e.g. did you have a bigger adjustment than would have been warranted by the state of the business cycle?) In the case of a merger or takeover, the work force refers to the combined pre-merger operations.

	1980s	1990s
Employment was reduced (percentage change if possible).	_____	_____
Employment was increased (percentage change if possible).	_____	_____
Employment fell initially, but eventually increased due to improved long-run competitive position.	_____	_____
Employment increased initially, but was later found to be excessive and was cut back.	_____	_____
No effect on employment levels.	_____	_____

6. Did the types of restructuring included in Question 3 affect the composition of your work force?

	1980s	1990s
Skill mix was changed in favour of higher skilled workers.	_____	_____
Some employees were replaced by contract workers.	_____	_____
Greater reliance on temporary workers.	_____	_____
Proportion of part-timers was increased.	_____	_____
Proportion of part-timers was decreased.	_____	_____
Other *(please elaborate)*	_____	_____

7. Following your response to Question 5, if the net result was a reduction in the size of the work force or of hours, which of the following factors, if any, had a significant influence on the decision?

	1980s	1990s
Wage rates were not consistent with productivity.	_____	_____
Payroll tax increases could not be passed on. *(in lower absolute or lower increases in wages)*	_____	_____
Shortage of skilled workers	_____	_____
Investment in new technology	_____	_____
Competition squeezed profit margins making it necessary to reduce the cost of labour inputs.	_____	_____
Other *(Please elaborate.)*	_____	_____

8. What further major changes are likely to occur in your business over the next 5 years?

(Please elaborate briefly.)

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